THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A method for circumferential application of materials to an interior surface of a curved pipe, comprising the steps of:

providing a pipe support with a rotational axis;

mounting a curved section of pipe to the pipe support;

positioning an arm supporting an applicator head within the curved section of pipe;

rotating the pipe support about the rotational axis, while coordinating movement of the arm to maintain the applicator head in a working position within the curved section of pipe.

2. The method as defined in Claim 1, the arm rotating with the pipe support.

3. The method as defined in Claim 1, including the further step of varying the rotational speed of the pipe support to control a rate of application.

4. The method as defined in Claim 1, including the further step of oscillating the applicator head and varying the oscillating amplitude of the applicator head to compensate for differences in length of curvature of the pipe.

5. A method for circumferential application of materials to an interior surface of a curved pipe, comprising the steps of:

providing a pipe support with a rotational axis;

mounting a curved section of pipe to the pipe support;

positioning an arm supporting an applicator head within the curved section of pipe;

rotating the pipe support about the rotational axis, while coordinating movement of the arm to maintain the applicator head in a working position within the curved section of pipe;

varying the oscillating amplitude of the applicator head to compensate for differences in length of curvature of the pipe; and

varying the rotational speed of the pipe support to compensate for changes in rate of application due to variations in the oscillation amplitude of the applicator head.

6. An apparatus for circumferential application of materials to an interior surface of a curved pipe, comprising:

a base;

a pipe support having a cavity adapted to receive a curved section of pipe, the pipe support being mounted to the base for rotation about a rotational axis;

an arm extending into the cavity of the pipe support;

an applicator head mounted to the arm;

a rotational drive adapted to rotate the pipe support about the rotational axis;

a controller adapted to coordinate movement of the arm with the rotational positioning of the pipe support.

7. The apparatus as defined in Claim 6, wherein the arm rotates with the pipe support.

8. The apparatus as defined in Claim 6, wherein the controller coordinates the position of the applicator head with the rotational positioning of the pipe support.

9. The apparatus as defined in Claim 6, wherein the pipe support includes longitudinal guides and guidance source adapted to move a curved section of pipe along the longitudinal guides.

10. The apparatus as defined in Claim 9, wherein the longitudinal guides include guide tracks, the guide tracks engaging movable members which are adapted for attachment to a curved section of pipe, the guidance source being adapted to move the movable members along the longitudinal guides.

11. The apparatus as defined in Claim 10, wherein the movable members have guide wheels that engage the guide tracks.

12. The apparatus as defined in Claim 9, wherein several longitudinal guides are provided, each one of the several

longitudinal guides being adapted to accommodate a curved section of pipe having a different curvature.

18 ~~13~~. The apparatus as defined in Claim ~~9~~ 14, wherein the longitudinal guidance source applies a linear pulling force and the longitudinal guides provide an arcuate guide path to compensate for a curvature of the pipe.

19 ~~14~~. The apparatus as defined in Claim ~~9~~ 11, wherein the rotational drive includes a drive motor which drives a pair of spaced driven sprockets which engage a gear sprocket on the pipe support, and thereby impart a rotational force to the pipe support.

10 ~~15~~. The apparatus as defined in Claim ~~9~~ 12, wherein a linkage extends through the arm to the applicator head, the flexible linkage being adapted to control orientation of the applicator head.

11 ~~16~~. The apparatus as defined in Claim ~~9~~ 11, wherein the applicator head oscillates with an amplitude of such oscillations being controlled by a movable sensor oscillating between a pair of angularly offset rotating swash plates carried by the rotating pipe support, the movable sensor having a master to slave relationship with an oscillating drive for the applicator head.

17. An apparatus for circumferential application of materials to an interior surface of a curved pipe, comprising:

a base;

a pipe support having a cavity adapted to receive a curved section of pipe, the pipe support being mounted to the base for rotation about a rotational axis;

an arm extending into the cavity of the pipe support;

an applicator head mounted to the arm;

a rotational drive adapted to rotate the pipe support about the rotational axis;

a controller adapted to coordinate movement of the arm and the position of the applicator head with the rotational positioning of the pipe support;

the pipe support having longitudinal guides, movable members engaging the longitudinal guides, the movable members being adapted for attachment to a curved section of pipe, and a guidance source which provides a linear pulling force to the movable members, thereby moving the curved section of pipe along the longitudinal guides, the longitudinal guides providing an arcuate guide path to compensate for a curvature of the pipe.

18. The apparatus as defined in Claim 17, wherein the longitudinal guides include guide tracks, and movable members have guide wheels that engage the guide tracks.

19. The apparatus as defined in Claim 17, wherein several interchangeable longitudinal guides are provided, each one of the several longitudinal guides being adapted to accommodate a curved section of pipe having a different curvature.

20. The apparatus as defined in Claim 17, wherein the rotational drive includes a drive motor which drives a pair of spaced driven sprockets which engage a gear sprocket on the pipe support, and thereby impart a rotational force to the pipe

support.

16 21. The apparatus as defined in Claim 12, wherein a linkage extends through the arm to the applicator head, the flexible linkage being adapted to control orientation of the applicator head.

17 22. The apparatus as defined in Claim 12, wherein the applicator head oscillates with such oscillations being controlled by a movable sensor oscillating between a pair of angularly offset rotating swash plates carried by the rotating pipe support, the movable sensor having a master to slave relationship with an oscillating drive for the applicator head.

18 23. The apparatus as defined in Claim 12, wherein the arm rotates with the pipe support.

19 24. An apparatus for circumferential application of materials to an interior surface of a curved pipe, comprising:

a base;

a pipe support having a cavity adapted to receive a curved section of pipe, the pipe support being mounted to the base for rotation about a rotational axis;

an arm extending into the cavity of the pipe support, the arm being coupled for rotation with the pipe support;

an oscillating applicator head mounted to the arm;

an oscillating drive for oscillating the applicator head;

a rotational drive adapted to rotate the pipe support about the rotational axis;

a flexible control linkage adapted to coordinate movement of the applicator head with the rotational positioning of the pipe support and the arm, the flexible linkage being adapted to control orientation of the applicator head, the applicator head oscillating with such oscillations being controlled by a movable sensor oscillating between a pair of angularly offset rotating swash plates carried by the rotating pipe support, the movable sensor having a master to slave relationship with the oscillating drive for the applicator head;

the pipe support having longitudinal guides, movable members engaging the longitudinal guides, the movable members being adapted for attachment to a curved section of pipe, and a guidance source which provides a linear pulling force to the movable members, thereby moving the curved section of pipe along the longitudinal guides, the longitudinal guides providing an arcuate guide path to compensate for a curvature of the pipe.

20 25. The apparatus as defined in Claim 24, 19 wherein the longitudinal guides include guide tracks, and movable members have guide wheels that engage the guide tracks.

21 26. The apparatus as defined in Claim 24, 19 wherein several interchangeable longitudinal guides are provided, each one of

the several longitudinal guides being adapted to accommodate a curved section of pipe having a different curvature.

22. ~~21~~. The apparatus as defined in Claim ~~21~~ 19, wherein the rotational drive includes a drive motor which drives a pair of spaced driven sprockets which engage a gear sprocket on the pipe support, and thereby impart a rotational force to the pipe support.

123 28. An apparatus for circumferential application of materials to an interior surface of a curved pipe, comprising:

a base;

a pipe support having a cavity adapted to receive a curved section of pipe, the pipe support being mounted to the base for rotation about a rotational axis;

an arm extending into the cavity of the pipe support, the arm rotating with the pipe support;

an applicator head mounted to the arm;

a rotational drive adapted to rotate the pipe support about the rotational axis;

a controller adapted to coordinate movement of the applicator head with the rotational positioning of the pipe support and arm;

a linear longitudinal guidance source applying a linear pulling force which is adapted to move the curved section of pipe along the cavity;

longitudinal guides providing an arcuate guide path adapted to guide movement of the curved section of pipe, the arcuate guide path compensating for a curvature of the pipe as the pipe support rotates and the linear pulling force is exerted by the longitudinal guidance source.